TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Chicago 2417 Bond Street University Park, IL 60484 Tel: (708)534-5200

TestAmerica Job ID: 500-82358-1

Client Project/Site: Ponds and Process Tanks

For:

Central Wire (Techalloy) 6509 Olson Road Union, Illinois 60180

Attn: Robert Johnson

Authorized for release by: 8/25/2014 11:30:44 AM

Therese Hargraves, Project Manager I therese.hargraves@testamericainc.com

Designee for

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Therese Hargaves

sandie.fredrick@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-82358-1

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Lab Chronicle	7
Certification Summary	8
Method Summary	9
Sample Summary	10
Chain of Custody	11
Receipt Checklists	12

Definitions/Glossary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-82358-1

Qualifiers

GC/MS VOA

Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier Qualifier Description

Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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¤ Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision level concentration DLC MDA Minimum detectable activity EDL Estimated Detection Limit

MDC Minimum detectable concentration

MDL Method Detection Limit Minimum Level (Dioxin) ML

NC Not Calculated

Not detected at the reporting limit (or MDL or EDL if shown) ND

POL **Practical Quantitation Limit**

Quality Control RER Relative error ratio

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TFF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

TestAmerica Chicago

Case Narrative

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-82358-1

Job ID: 500-82358-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-82358-1

Comments

No additional comments.

Receipt

The samples were received on 8/14/2014 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

The temperature of the cooler at receipt was 2.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-82358-1

Client Sample ID: P&T Lab Sample ID: 500-82358-1 Date Collected: 08/13/14 10:31

Matrix: Ground Water

Date Received: 08/14/14 09:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.80	J	1.0	0.20	ug/L			08/15/14 11:10	1
Tetrachloroethene	1.1		1.0	0.17	ug/L			08/15/14 11:10	1
Trichloroethene	1.2		0.50	0.19	ug/L			08/15/14 11:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88	***************************************	75 - 125			-		08/15/14 11:10	1
4-Bromofluorobenzene (Surr)	94		75 - 120					08/15/14 11:10	1
Dibromofluoromethane	95		75 - 120					08/15/14 11:10	1
Toluene-d8 (Surr)	106		75 - 120					08/15/14 11:10	1

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 0.200 0.200 SU 08/14/14 14:09 8.24 HF рΗ

Client Sample ID: North Pond Lab Sample ID: 500-82358-2 Matrix: Ground Water

Date Collected: 08/13/14 10:17

Date Received: 08/14/14 09:40

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ron	250	100	12	ug/L		08/22/14 07:30	08/22/14 16:02	1
_ead	0.60	0.50	0.091	ug/L		08/22/14 07:30	08/22/14 16:02	1
Manganese	12	2.5	0.76	ug/L		08/22/14 07:30	08/22/14 16:02	1
Nickel	16	2.0	0.69	ug/L		08/22/14 07:30	08/22/14 16:02	1
Selenium	<0.69	2.5	0.69	ug/L		08/22/14 07:30	08/22/14 16:02	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	<0.045		0.10	0.045	mg/L	 		08/15/14 16:09	1
рН	7.06	HF	0.200	0.200	SU			08/14/14 14:13	1

Client Sample ID: South Pond Lab Sample ID: 500-82358-3

Date Collected: 08/13/14 10:12

рΗ

Date Received: 08/14/14 09:40

	IS) - Total Recov	erable							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	510		100	12	ug/L		08/22/14 07:30	08/22/14 16:06	1
Lead	1.7		0.50	0.091	ug/L		08/22/14 07:30	08/22/14 16:06	1
Manganese	19		2.5	0.76	ug/L		08/22/14 07:30	08/22/14 16:06	1
Nickel	37		2.0	0.69	ug/L		08/22/14 07:30	08/22/14 16:06	1
Selenium	0.70	J	2.5	0.69	ug/L		08/22/14 07:30	08/22/14 16:06	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	<0.045		0.10	0.045	mg/L			08/15/14 16:11	1

0.200

0.200 SU

8.05 HF

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08/14/14 14:17

Matrix: Ground Water

Client Sample Results

Client: Central Wire (Techalloy)

TestAmerica Job ID: 500-82358-1

Project/Site: Ponds and Process Tanks

Client Sample ID: Trip Blank Lab Sample ID: 500-82358-4

Date Collected: 08/13/14 09:50 Matrix: Water

Date Received: 08/14/14 09:40

Method: 8260B - Volatile Orga	inc compounds	(GCIMO)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.20		1.0	0.20	ug/L			08/15/14 11:37	1
Tetrachloroethene	<0.17		1.0	0.17	ug/L			08/15/14 11:37	1
Trichloroethene	<0.19		0.50	0.19	ug/L			08/15/14 11:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 125			=		08/15/14 11:37	1
4-Bromofluorobenzene (Surr)	92		75 - 120					08/15/14 11:37	1
Dibromofluoromethane	96		75 _ 120					08/15/14 11:37	1







Lab Chronicle

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-82358-1

Client Sample ID: P&T

Lab Sample ID: 500-82358-1

Matrix: Ground Water

Date Collected: 08/13/14 10:31 Date Received: 08/14/14 09:40

Batch	Batch		Dilution	Batch	Prepared		
Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Analysis	8260B		1	250036	08/15/14 11:10	EMA	TAL CHI
Analysis	SM 4500 H+ B		1	250004		JLE	TAL CHI
				(Start)	08/14/14 14:09		
				(End)	08/14/14 14:11		
	Type Analysis	Type Method Analysis 8260B	Type Method Run Analysis 8260B	TypeMethodRunFactorAnalysis8260B1	Type Method Run Factor Number Analysis 8260B 1 250036 Analysis SM 4500 H+ B 1 250004 (Start)	Type Method Run Factor Number or Analyzed Analysis 8260B 1 250036 08/15/14 11:10 Analysis SM 4500 H+ B 1 250004	Type Method Run Factor Number or Analyzed Analyst Analysis 8260B 1 250036 08/15/14 11:10 EMA Analysis SM 4500 H+ B 1 250004 JLE (Start) 08/14/14 14:09 08/14/14 14:09

Client Sample ID: North Pond

Lab Sample ID: 500-82358-2

Matrix: Ground Water

Date Collected: 08/13/14 10:17 Date Received: 08/14/14 09:40

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			251100	08/22/14 07:30	MJP	TAL CHI
Total Recoverable	Analysis	6020A		1	251432	08/22/14 16:02	BJH	TAL CHI
Total/NA	Analysis	353.2		1	250664	08/15/14 16:09	BAH	TAL CHI
Total/NA	Analysis	SM 4500 H+ B		1	250004		JLE	TAL CHI
					(Start)	08/14/14 14:13		
					(End)	08/14/14 14:15		

Client Sample ID: South Pond

Lab Sample ID: 500-82358-3

Matrix: Ground Water

Date Collected: 08/13/14 10:12 Date Received: 08/14/14 09:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			251100	08/22/14 07:30	MJP	TAL CHI
Total Recoverable	Analysis	6020A		1	251432	08/22/14 16:06	BJH	TAL CHI
Total/NA	Analysis	353.2		1	250664	08/15/14 16:11	ВАН	TAL CHI
Total/NA	Analysis	SM 4500 H+ B		1	250004		JLE	TAL CHI
					(Start)	08/14/14 14:17		
					(End)	08/14/14 14:19		

Client Sample ID: Trip Blank

Lab Sample ID: 500-82358-4

Matrix: Water

Date Collected: 08/13/14 09:50 Date Received: 08/14/14 09:40

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	250036	08/15/14 11:37	EMA	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-82358-1

Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-15

7

Method Summary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-82358-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL CHI
SM 4500 H+ B	рН	SM	TAL CHI

Protocol References:

MCAVW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica Chicago

Sample Summary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-82358-1

Received	000000000000000000000000000000000000000

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-82358-1	P&T	Ground Water	08/13/14 10:31	08/14/14 09:40
500-82358-2	North Pond	Ground Water	08/13/14 10:17	08/14/14 09:40
500-82358-3	South Pond	Ground Water	08/13/14 10:12	08/14/14 09:40
500-82358-4	Trip Blank	Water	08/13/14 09:50	08/14/14 09:40

Chicago

2417 Bond Street



Chain of Custody Record, 1st & 2nd Month of Quarter

THE LEADER IN ENVIRONMENTAL TESTING

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phone 708.534.52 500-82358 COC		Zenkafki dakki Zenoozoo	reconscionas en en en en en en en en	TOWNS CONTRACTOR OF THE PERSONS CONTRACTOR OF THE PERSONS CONTRACTOR OF THE PERSONS CONTRACTOR OF THE PERSONS	interpresentation	-	TO AG Sar	U yandidaan	nn-nn-d/di	Secretary and account	hannan ayan arasiyar	-wormoone	age are as a second	NICK COMMON AND ADDRESS OF THE PARTY OF THE	naconar naca yea	Menanandacian	Married State of Stat	-	tAmeric	a Labora	atories,	Inc.
Act Central Wire Union Plant	~	anager: Ro			-				obert	Johns	on		Date:					CO	C No:			
6509 Olson Rd.	Lei/Fax: 8	15.923.4919			***********	Lab	Conta	ct:	Marine (S		-	onstapecanos	Carri	er: UI	S			lab	_1 of	11	COCs	1030-1014-00-1014
Union, IL 60180	Colonda	***************************************	urnaround			cooper second							-					Jos	No. 500 -	£7	250	٥
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Sample Identification	Sample Date	Sample •Time	Sample Type	Matrix	# of Cont.	Fiftered Sampl	Metals* (250 ml jars) 1	N + N (500	pH 1, 6										Sam	ple Specif	ic Notes:	midente success
P&T Effluent	8/13/11	10:31	G	GW	3		X												***************************************	***************************************		
P&T pH	, ,	10:31	G	GW	1	N			Х		T	-	$\dagger \dagger$			$\dagger \dagger$						
North Pond	1 1	10:17	G	GW	1	N	Х													/		**************************************
North Pond	1 2 2	10:17	G	GW	1	N		Х												RENEWALKER	**************************************	***************************************
North Pond	11	10:17	G	GW	1	N			Х											HATE SAFETY AND	an je niho di kada na kandalan nepengaga	************
South Pond	8/13/14	10:12	G	GW	1	N	Х															***************************************
South Pond	8/13/14	10:12	G	GW	1	N		Х											***************************************	VIOLENCE CONTRACTOR CO	Michael Marine Control Con	***************************************
South Pond	8/13/14	10:12	G	GW	1	N			Х										-			
Trip Blank	8/13/14	9:50																			~~~	
		***																	Managara ay	de consideración de la con	r*	AMAAN AND AND AND AND AND AND AND AND AND
						bropality and																
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Na	OH; 6= Oth	er	ACUE DOCKEROUS culturous colorec		processing (1979)								111							«Везовалоска разристалос		***************************************
Possible Hazard Identification			The second secon		*************	S	ampl	e Dis	spos	al (A	fee m	-				iles ai	e retali	ned lor	ger than	1 month	1)	***************************************
Non-Hazard Flammable Skin Irritant	Poison	$B \sqcup A$	Unknown		500C0CF00C00EW		ر لــــا	Retu	rn To	Clier	it	<u> </u>	Dispo	sal By	Lab		⊸ Arcl	nive Fo		Mor	nths	2500000500000
Special Instructions/QC Requirements & Comments: North Pond Netals: Iron (Fe), Lead (Pb), Manganese (M South Pond Metals: Iron (Fe), Lead (Pb), Manganese (M Rec Center Metals: EPA Nethod 6020A & pH - no preso	n). Nickel (î	Ni) & Seler Ni) & Selen	ilum (Se) ilum (Se)										·									
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Vince Carlo	Company:			Date/Ti	me:) R	Legelye	ed ty:	Va	Zy,	an		·	Con	ipany;		• • • •	Dat	e/Time;			
Relinquished by:	Company:			Date/Ti	me:	R	teceive	ed by		A	C	+	to-	Con	npany:	174		Da	te/Time:	14	094	

Login Sample Receipt Checklist

Client: Central Wire (Techalloy) Job Number: 500-82358-1

Login Number: 82358 List Source: TestAmerica Chicago

List Number: 1 Creator: Lunt, Jeff T

Question Ar	nswer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>rue</td> <td></td>	rue	
The cooler's custody seal, if present, is intact.	rue	
Sample custody seals, if present, are intact.	rue	
The cooler or samples do not appear to have been compromised or tampered with.	rue	
Samples were received on ice.	rue	2.6
Cooler Temperature is acceptable.	rue	
Cooler Temperature is recorded.	rue	
COC is present.	rue	
COC is filled out in ink and legible.	rue	
COC is filled out with all pertinent information.	rue	
Is the Field Sampler's name present on COC?	rue	
There are no discrepancies between the containers received and the COC.	rue	
Samples are received within Holding Time.	rue	
Sample containers have legible labels.	rue	
Containers are not broken or leaking.	rue	
Sample collection date/times are provided.	rue	
Appropriate sample containers are used.	rue	
Sample bottles are completely filled.	rue	
Sample Preservation Verified.	rue	
There is sufficient vol. for all requested analyses, incl. any requested Tr MS/MSDs	rue	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	rue	
Multiphasic samples are not present.	rue	
Samples do not require splitting or compositing.	rue	
Residual Chlorine Checked.	/ A	